

Amendments to the Specification:

Please replace the paragraph beginning on line 11 of page 1 with the following amended paragraph:

Screen printing utilizes a tensioned screen or mesh mounted on a frame having a stenciled image thereon. Ink is applied through the screen in the areas where the stencil has not blocked the openings between the threads of the mesh. The screen/mesh is typically fixed onto a rectangular (sometimes square) frame. Screen/mesh printing is highly variable in nature, with one of the main causes being the tension variation across a screen/mesh simultaneously stretched in two directions, either immediately, or due to variable tension loss over time. The variation in tensioning forces also affects the regular nature of the woven screen/mesh structure, causing variation in screen/mesh opening sizes, and ink/fluid transfer rates. To ~~attempt to~~ address this systems are available for multi-stage screen/mesh stretching, to retension the screen/mesh after use, in an attempt to increase stability and consistency over time and use. However, these systems increase the cost of producing a stable and consistent screen printed product, and each time the screen/mesh is used it risks damage and loss. Screen/mesh is typically supplied on rolls for multiple applications and, to a very limited extent, pre-coated with stencil materials. The rolls are often large, difficult to handle, and liable to impact damage. Stretching systems for screen printing are highly variable in the range of mechanisms and techniques used.

Please replace the paragraph beginning on line 21 of page 13 with the following amended paragraph:

Fig. 26B are cross sectional side ~~view~~ an views of ink barriers according to the present invention.

Please replace the paragraph beginning on line 17 of page 2 with the following amended paragraph:

Once the screen/mesh is attached to the single frame resistive forces to deflection are applied under a squeegee action in the plain of the screen/mesh ~~stretching~~. This is particularly true the nearer to the frame the squeegee travels. This results in variation in the squeegee deflection and screen/mesh contact across the width of the print image and perpendicular to the print direction. To address this squeegee action deflection forces are increased to ensure contact at the ends of the print area, which results in excess squeegee pressure and deflection at the center of the print image, causing increased squeegee wear, possible screen/mesh damage, and/or variation of ink and/or fluid transfer across the print width.

Please replace the paragraph beginning on line 12 of page 24 with the following amended paragraph:

Multi-piece frame **200** has end frames **204** hinged to apply tension forces. The side frames pieces **202** are attached to a screen/mesh and the end frame pieces **204** are expanded via their hinges **206** to apply tension laterally before being locked with a locking device **208**.

Please replace the paragraph beginning on line 14 of page 24 with the following amended paragraph:

Several options are available for interlocking frame side pieces (see **Figs. 19-30**). The frame side pieces may be profiled to include ink barriers. They may be multi-piece to allow different frame sizes, and locks may be integral to the side pieces or be separate inserts. A mechanism ~~[[514]]~~ **510** enabling the side pieces of the multi-part frame to be forced apart in fixed displacements for controlled lateral tension is shown in **Fig. 30**.

Please replace the replacement paragraph beginning on line 20 of page 26 with the following amended paragraph:

An image **800** of a screen/mesh **810** following print direction stretching is shown in **Figs. 38A** and **38B**. The screen/mesh **810** is fixed to an outer frame **806**. An image **820** of an inner frame **826** placed on a print direction stretched screen/mesh **840** is

shown in **Figs. 39A and 39B**. The screen/mesh **840** is fixed to an outer frame **830**. The inner frame **826** includes cross support elements **828** and **836**. An image **850** of an inner frame **856** fixed in position on a stretched screen/mesh **870** is shown in **Figs. 40A and 40B**. The screen/mesh **870** is fixed to an outer frame **860**. The inner frame **856** includes cross support elements **858**, **866**, and side pieces **868**. An image **880** of inner frame sides **886** fixed in position with end pieces **910** fitted in location on a stretched screen/mesh **900** is shown in **Figs. 41A and 41B**. The screen/mesh **900** is fixed to an outer frame **890**. The inner frame sides **886** include cross support elements **884** and **885** and end support elements **910**. Lower level tension forces perpendicular to the print direction are applied to a screen/mesh **920** after an inner frame is mounted on the screen/mesh **920**, as shown in **Fig. 42**. A deflected screen/mesh **922** following the fitting of inner frame end pieces is shown in **Fig. 43**. An image **930** of a screen/mesh **948** with inner frame cross supports removed and end pieces **946** locked into position with locking clips **944** is shown in **Figs. 44A and 44B**. The screen/mesh **948** is fixed to an outer frame **938**. An image **950** of a screen/mesh **970** with inner frame cross supports removed and end pieces **966** locked into position with locking clips **964** is shown in **Figs. 45A and 45B**. The screen/mesh **970** is fixed to an outer frame **958**. Once the inner frame sides **956** are attached, and the screen/mesh **970** has been stretched, the screen/mesh **970** is ready for stencil application and imaging in a potential image area **972**. An image **980** of a screen/mesh **1010** with screen and ink/fluid barriers **998** in place is shown in **Figs. 46A and 46B**. The screen/mesh **1010** has inner frame cross supports removed and

end pieces **996** locked into position with locking clips **[[994]] 997**. The screen/mesh **1010** is fixed to an outer frame **994**. Once the inner frame **986** is attached, and the screen/mesh **1010** has been stretched, the screen/mesh **1010** is ready for stencil application and imaging in a potential image area **1012**.

Please replace the replacement paragraph beginning on line 15 of page 27 with the following amended paragraph:

An image **1030** of a single-piece inner frame ink/fluid barrier structure **1032** resting on a screen/mesh **1034** is shown in **Figs. 47A and 47B**. A corner structure **1040** of a multi-piece inner frame ink/fluid barrier structure is shown in **Fig. 48**. A portion of an ink/fluid barrier **1058** on an end or side piece **1052** is positioned on a screen/mesh **1050** and attached via **1054** and **1056** is shown in **Fig. 49**. Various ink/fluid barrier structures **1060** are shown in **Fig. 50**. Pre-coated screen/mesh properties are shown in **Figs. 51A-51D**. **Fig. 51A** shows an image **1070** of a screen mesh **1072** with an image area **1074**. Additional screen/mesh support strips **1076** for lateral tensioning on the screen mesh **1072** are shown in **Fig. 51B**. **Figs. 51C and 51D** show elements **1080, 1082, and 1086** of a side piece on a support coating **1084** of a screen mesh. An image **1100** of a screen/mesh piece **1110** with an image area **1120** is shown in **Fig. 52**. The screen/mesh piece **1110** includes additional screen/mesh support strips **1114** for lateral tensioning near sides **1112**. Pre-cut screen/mesh pieces **1130** with image

areas 1132 separated with protected layers 1140 for shipping and storage are shown in Fig. 53.

Please insert the following new paragraph before the replacement paragraph beginning on line 3 of page 28:

The following discussion explains the method for stretching and mounting a screen/mesh on a frame according to the invention. A new screen/mesh with a pre-coated stencil is prepared. The screen/mesh can be provided as one or more screens/meshes on a roll. A strip of material can be provided to each print direction side of the one or more screens/meshes to provide an attachment point, support, and a seal against fluid encroachment in a bond between the one or more screens/meshes and the inner frame. Individual screen/mesh pieces can be separated from the one or more screens/meshes for shipping and storage, and the separated individual screen/mesh pieces can be provided with a protective material. A strip of material can be provided to each print direction side of the separated individual screen/mesh pieces to provide an attachment point, support, and a seal against fluid encroachment in a bond between the separated individual screen/mesh pieces and the inner frame. The screen/mesh can alternatively be provided as individual pre-cut pieces that are edge sealed to ensure dimensional stability and integrity. A strip of material can be provided to each print direction side of such individual pre-cut pieces to provide an attachment point, support, and a seal against fluid encroachment in a bond between the individual pre-cut pieces and the inner frame.

Please replace the replacement paragraph beginning on line 3 of page 28 with the following amended paragraph:

~~The following discussion explains the method for stretching and mounting a screen/mesh on a frame according to the invention. A new screen/mesh with a pre-coated stencil is prepared.~~ The dual frame is prepared with adhesive tape (double sided). Minor lateral tension is applied to ensure the screen/mesh is flat and wrinkle free before clamping for stretching. The screen/mesh is clamped for stretching. The screen/mesh is stretched in the print direction. The second surface of the double sided tape is readied for adhesion. If available, the outer frame position is moved to ensure the stretched screen/mesh is central. The frame is raised to bring it into contact with the screen/mesh. Pressure is applied to ensure good bonding between the screen/mesh and the double sided adhesive tape. The tension is removed and excess screen/mesh is trimmed. The frames may be rotated 180 degrees for access to the upper non print surface of the screen/mesh.

Please replace the replacement paragraph beginning on line 8 of page 32 with the following amended paragraph:

The screen/mesh is now stretched, imaged, mounted, and ready for final preparations. The ink/fluid barrier(s) are applied to the inner frame. Three categories of ink/fluid barriers include integral frame pieces that act as ink/fluid barriers, a single piece ink/fluid barrier construction with fixed screen image area dimensions, and a multi-piece ink/fluid barrier construction allowing a range of image areas and shapes to be

considered. Each vertical barrier surface is sealed using single sided tape to ensure no ink/fluid leakage between the barrier components. There are four initial attachment techniques envisaged for the ink/fluid barriers to the inner frame. ~~Velcro~~ VELCRO, i.e., hook and loop fasteners, may be attached to the side and end pieces. Double sided (foam) adhesive tape may be attached to the top of the frame and matching surface on the ink barrier side and end pieces. Quick fit pin (or similar) registration and locking at the corners may be applied to the inner frame side piece. Liquid or spray adhesive may be used. With the ink barrier assembled and in position attached to the inner frame, its edges to the screen are sealed using single sided self adhesive tape, to ensure no ink/fluid leakage under the ink/fluid barrier(s). The screen is now ready to be used on press.